

28/07

PATENT COOPERATION TREATY

REC'D 18 MAY 2005

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From the
INTERNATIONAL SEARCHING AUTHORITY

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To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)Applicant's or agent's file reference
see form PCT/ISA/220**FOR FURTHER ACTION**
See paragraph 2 belowInternational application No.
PCT/GB2005/000094International filing date (day/month/year)
14.01.2005Priority date (day/month/year)
21.01.2004International Patent Classification (IPC) or both national classification and IPC
E02F3/40, E02F5/02Applicant
MENCE, Brian

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2005/000094

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	9,12-13
	No: Claims	1-8,10-11,14-17
Inventive step (IS)	Yes: Claims	9
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-17
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement;

- 1.1 In the terms of independent claim 1, WO90/05813 (=D1) shows in figure 1 an excavator bucket (see figure 1) having an adjustable cutting width (see dash-dotted lines of side walls 17, 19), the bucket comprising a back plate (14), a pair of spaced apart side walls (17, 19), and a width adjustment mechanism (31, 32, 33, 34, 36, 39), wherein the distance between the side walls (17, 19) is adjustable to vary the cutting width of the bucket (see figure 1 and page 1, line 37), and wherein the mechanism provides for adjustment (by using said bolts and holes the size between side walls can be adjusted) of the distance between the said side walls (17, 19). All the features of claim 1 are at least implicitly known from D1. Thus, the claimed subject-matter of claim 1 is not novel (Article 33(1)(2) PCT). Moreover, the claimed subject-matter is not novel over at least the following prior art documents: SU534552 (=D2, see its figure), JP-A-60023526 (=D3, see figures 1-6), US-4691455 (=D4, see figures), SU435324 (=D5, see its figure).
- 1.2 The features of the dependent claims 1-8, 10, 11, 14-17 are at least implicitly known from at least one of the documents D1-D5 and do not contribute to novelty (Article 33(1)(2)):
- Claim 2: Side plate (17, 19) hingably (hinge 21) connected, see figure 1 of D1; and side plates (1,2) with hinge (3) in the figure of D2;
 - Claim 3: A pair of arms (8, 9) fixed to side plates (1, 2) and to a mounting member (5) (via hinge 3) and an actuator (10, 11) generating the movement of the side plates (1, 2), see the figure of D2;
 - Claim 4: The arms (8, 9) are fixedly attached to the side plates, see D2, figure;
 - Claim 5: The arms (8, 9) pivotally attached to mounting member (5), see D2, figure;
 - Claim 6: The arms (8, 9) of D2 pivot about a bearing (3, the term bearing does not specify a special bearing; thus the slide bearing of D2, falls under this term);
 - Claim 7: Obviously the slide bearing of the hinge of D2 comprises also a bush;
 - Claim 8: As the term "compressible" does not specify a specific "bulk modulus of

elasticity" also the bushing of D2 is considered as compressible;

Claim 10: D3, shows in figure 4 a threaded bar (17) passing through cooperating bore (18); one end of the bar (17) is rotatable (see pivot at plate 3, which represents a part of a mounting member);

Claim 11: D3, figure 5 shows a piston cylinder arrangement (19, 20);

Claim 14: A base plate extending from a bottom edge towards the centre of the bucket can be seen in D1, figure 1, base supports (24); in D2, figure, base plates (4, 7) and D5, figure, portions at the base of the bucket;

Claim 15: The base plates of D5, see figure, abut each other when the side plates (1, 2) are in a parallel configuration;

Claim 16: The base plates of D5 also form cutting edges (see figure);

Claim 17: The planar surfaces of the base plates of D3 abut a planar back plate (shown at the back portion of part 11);

- 1.3 The subject-matter of claim 9 incorporating all the features of claims 1, 2 and 9 is neither known from nor rendered obvious by the available prior art (Article 33(1)(3) PCT).

The technical effects of these features can be summarised as: Providing an actuation mechanism for such a bucket which reduces the forces directly applied to the actuator;

The objective technical problem can be formulated as: Enhancing life cycle of such an actuation mechanism;

D5 shows a mechanism wherein the movable bucket portions are not hingably connected; Therefore, the transfer of this teaching to an installation such as D1 or D2 is not considered as obvious for a skilled person;

Re Item VII

Certain defects in the international application;

- 2.1 The formulation of the claims does not comply with Rule 6.2(b) PCT because the features of the claims are not provided with reference signs placed in parentheses in order to increase the intelligibility of the claims.
- 2.2 The formulation of the independent claim does not comply with Rule 6.3 PCT.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2005/000094

Re Item VIII

Certain observations on the international application;

- 3.1 The references to claim "2" in claims 10 and 12, to "any preceding" in claim 11 is unclear, because these claims point to the actuator which was first mentioned in claim 3. Thus these claims are unclear and as such do not comply with Article 6 PCT.
- 3.2 Claim 18 contains references to the description and/or the drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.